

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (amended) A breath alcohol detection device comprising:
 - A) a breath inlet passage having an inlet port;
 - B) a pressure sensor in communication with the breath inlet passage to generate a pressure signal responsive to the pressure in the breath inlet passage;
 - C) a fuel cell;
 - D) a vent passage communicating the breath inlet passage to atmosphere;
 - E) a two flow position valve having a valve inlet in communication with the breath inlet passage, a first outlet, a second outlet, and an operator to shift the valve from a first flow position where the valve connects the valve inlet to the first valve outlet and a second flow position where the valve connects the valve inlet to the second valve outlet;
 - F) a first passage communicating the first valve outlet to atmosphere, and a first restriction in such passage;
 - G) a second passage communicating the second valve outlet to atmosphere through the fuel cell, and a second restriction in such second passage, said first restriction generally equaling said second restriction; and
 - H) an actuator for shifting the valve from the first flow position to the second flow position for an interval to flow a volume of breath from the breath inlet passage through the valve, through the second passage and into the fuel cell to generate a fuel cell output signal proportional to the alcohol contained in the sample, wherein shifting of the valve between

the first and second flow positions does not substantially vary the pressure in the breath inlet passage.

2. (original) The breath alcohol detection device as in claim 1 wherein said vent passage has a flow area larger than the flow area of the first restriction.

3. (original) The breath alcohol detection device as in claim 2 wherein the flow area of said first restriction is about 7.3 percent of the flow area of the vent passage.

4. (original) The breath alcohol detection device as in claim 3 wherein the flow area of the first restriction is about 0.00038 square inches and the flow area of the vent passage is about 0.0052 square inches.

5. (original) The breath alcohol detection device as in claim 1 including a body, said passages located in said body, a vent recess in the body, said vent passage and first passage opening in said vent recess, and said second passage opening away from said vent recess.

6. (original) The breath alcohol detection device as in claim 5 including a cover on the body, the cover overlying the vent recess, and one or more vent openings in the cover located over the vent recess.

7-15. (cancelled)

16. (amended) A breath alcohol detection device including a body having an exterior surface; a plurality of recesses formed in the body surface including a pressure sensor recess, a valve recess, a fuel cell recess and a vent recess; a pressure sensor in the pressure sensor recess; a two flow position valve in the valve recess; a fuel cell in the fuel cell recess; a breath inlet passage in the body having an inlet port at the body surface; a vent passage in the body extending from the breath inlet passage to the vent recess; a pressure sensor passage in the body extending from the breath inlet passage to the pressure sensor;

said valve having an inlet and first and second outlets, the valve inlet in communication with the breath inlet passage; a first passage in the body extending from a first valve outlet to the fuel cell; a second passage in the body extending from the second valve outlet to the vent recess; each of said pressure sensor, valve and fuel cell including electrical leads, all of said leads extending away from said body, wherein breath from the breath inlet passage flows through either the first passage or the second passage depending upon the flow position of the valve.

17. (original) The breath alcohol detection device as in claim 16 wherein said pressure sensor, valve and fuel cell are located substantially at or below the surface of the body.

18. (original) The breath alcohol detection device as in claim 16 including a cover surrounding said body, said cover overlying said vent recess, and including vent openings in said cover over such recess.

19. (original) The breath alcohol detection device as in claim 18 including a third passage in the body, said third passage extending from the fuel cell to the surface of the body away from the vent recess.

20. (original) The breath alcohol detection device as in claim 18 wherein said body comprises a block and is formed from a plastic material.

21. (original) The breath alcohol detection device as in claim 18 wherein said body includes a number of faces, said pressure sensor, valve and fuel cell located in said body substantially below said faces.

22. (original) The breath alcohol detection device as in claim 16 including a temperature sensor located in said breath inlet passage, said pressure sensor including leads extending through said body and away from said body.

23, 24. (cancelled)

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25. (amended) The breath alcohol detection device as in claim 1 wherein said interval is about 0.25 seconds, or less.

26. (amended) The breath alcohol detection device as in claim 16 including an actuator for shifting the valve to connect the inlet to the first valve outlet for about 0.25 seconds, or less.